

MONITORING SURVEY FRAMES

- Baseline measurement
- Pilot: **Zeeland/Flood proof electricity grid**

Important:

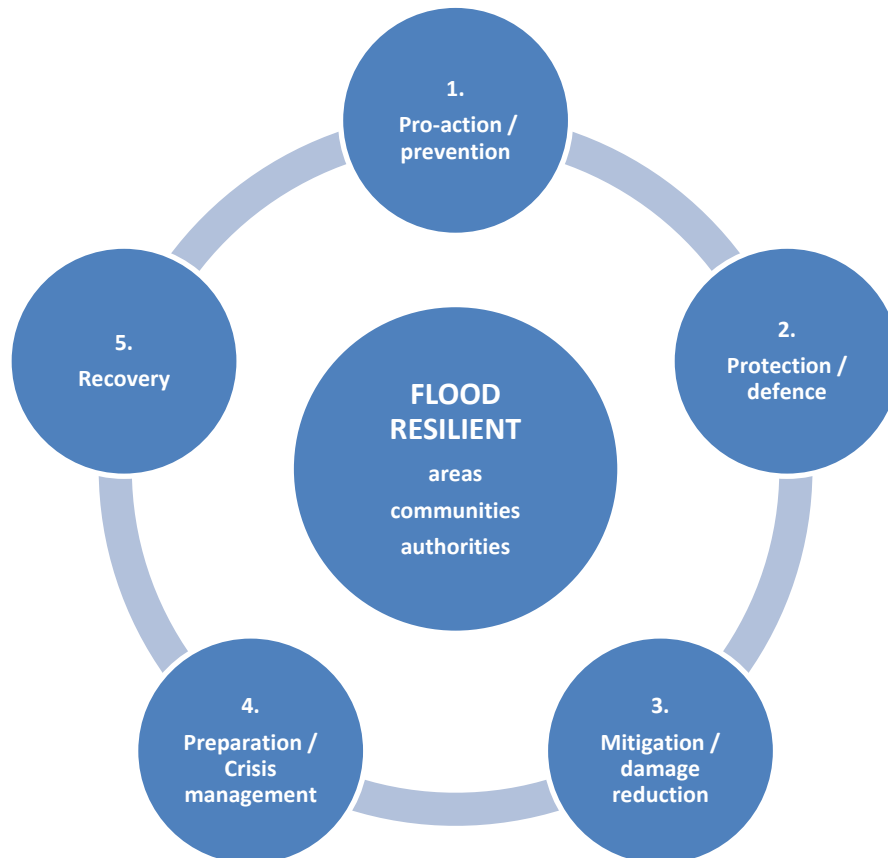
We kindly ask the pilot manager to complete this questionnaire in consultation **with relevant experts/stakeholders in the pilot/region**. The pilot manager can send this questionnaire and ask these experts/stakeholders to complete (certain) questions, or ask them to review answers. **Per pilot we would like to have 1 questionnaire returned.**

Who contributed to completing this questionnaire? Please provide names of persons and their organizations:

	Person	Organization
1	Erik Schumacher	Province of Zeeland
2	Anne Leskens	Nelen & Schuurmans
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Short explanation

FRAMES is about improving flood resilience by taking different types of actions. A common and well known typology in flood risk management is the disaster management cycle, as shown in the diagram below. This survey first focuses on the flood resilience of areas by considering the five elements proaction (1), protection (2), mitigation (3), preparation (4) and recovery (5). Hereafter, a few questions will be asked with regard to the flood resilience of communities and authorities.



1. Pro-action/prevention

Negative consequences of flooding can be avoided by pro-active spatial planning or land use policies (“keeping people away from water”), aimed at building only outside areas that are prone to flooding.

To what extent is proaction/prevention currently a strong characteristic of the pilot area?

<i>Not at all</i>										<i>To a great extent</i>
1	<input checked="" type="checkbox"/>	3	4	5	6	7	8	9	10	

Please shortly explain your answer:

Zeeland mostly relies on protection measures (hard infrastructure such as dams, levees, sluices)

2. Flood protection/defence

Keeping water away from people by (combinations of) hard infrastructural works (dikes, dams, etc.) or softer (nature based) solutions (dunes, retention in nature areas, etc.).

To what extent is flood protection/defence currently a strong characteristic of the pilot area?

<i>Not at all</i>										<i>To a great extent</i>
1	2	3	4	5	6	7	8	9	<input checked="" type="checkbox"/>	

Please shortly explain your answer:

The protection level of Zeeland is very high, based on a return period of 4000 years

3. Flood risk mitigation

Consequences of floods can be mitigated by a smart design of the flood-prone area including spatial orders, constructing flood compartments, or (regulations for) flood-proof building.

To what extent is flood risk mitigation a strong characteristic of the pilot area?

	<i>Not at all</i>									<i>To a great extent</i>
	1	2	3	4	5	6	7	8	9	10
Currently			X							
Expectation after Frames							X			

What will be done in FRAMES with regard to flood risk mitigation, that improves the ... physical resilience in the pilot area?

Protection of new assets by spatial planning, such as compartmentation

... capacities of local organisations / institutions in the pilot area?

Restrictions zones in riskfull areas

... capacities of local communities (citizens, businesses) in the pilot area?

Protection/relocation of important assets in the electricity network

4. Flood preparation

Consequences of floods can be mitigated by preparing for adequate response to a flood event. Measures include flood warning systems, disaster management and evacuation/rescue plans, and managing a flood when it occurs by taking last call emergency measures (e.g. sand bags).

To what extent is flood preparation a strong characteristic of the pilot area?

	<i>Not at all</i>										<i>To a great extent</i>
	1	2	3	4	5	6	7	8	9	10	
Currently							7				
Expectation after Frames								8			

What will be done in FRAMES with regard to flood preparation, that improves the

... physical resilience in the pilot area?

Making health care institutions and organisations aware of their responsibility to become resilient by taken measures for continuity (for example having their own power generators etcetera).

... capacities of local organisations / institutions in the pilot area?

The effect of Frames measures will be incorporated in existing and new plans and be based on the capacity available.

... capacities of local communities (citizens, businesses) in the pilot area?

The Electricity company Enduris can prepare to divert electricity in case of a threat of flooding. Baed on the outcomes of Frames they can improve the redundancy of their electricity grid.

5. Flood recovery

Facilitates a good and fast recovery after a flood event. Includes plans for draining / pumping away flood water and restoring safety and security, plans for reconstruction or rebuilding critical infrastructure, damage compensation/insurance systems, return of evacuated communities and social-psychological support.

To what extent is flood recovery a strong characteristic of the pilot area?

	<i>Not at all</i>									<i>To a great extent</i>
	1	2	3	4	5	6	7	8	9	10
Currently			3							
Expectation after Frames					5					

What will be done in FRAMES with regard to flood recovery, that improves the ... physical resilience in the pilot area?

When their is renewal or new critical infrastructure build it needs to be guaranteed to withstand a flood or in such way that it's easy to be recovered after a flood.

... capacities of local organisations / institutions in the pilot area?

As effect of Frames measures will be incorporated in existing and new plans and be based on the capacity available.

... capacities of local communities (citizens, businesses) in the pilot area?

Will be taken in account in new developments etcetera.

Flood resilience of authorities

Please name the organisations / stakeholders that will be involved in your pilot:

	Organization
1	Province of Zeeland
2	Waterboard Scheldestromen
3	Municipality Hulst
4	Ministry of Infrastructure & Environment
5	TenneT
6	Enduris
7	Veiligheidsregio Zeeland
8	Many more participants of Vital & Vulnerable Infrastructure
9	
10	

In general, to what extent is flood risk mitigation embedded in policy and practice of these organisations, in your opinion?

	<i>Not at all</i>									<i>To a great extent</i>
	1	2	3	4	5	6	7	8	9	10
Currently		2	3	4	5	6	7	8	9	10
Expectation after Frames	1	2	3	4	5	6	7	8	9	10

Please shortly explain your answer:

At the moment Zeeland is regarded by almost everyone to be flood proof, there is very little floodawareness. After FRAMES the negative effects from the flood are more visible/clear for the participating organisations. FRAMES will provide new opportunities for adaptation to floods that can be in everyones benefit

In general, to what extent is flood preparation embedded in policy and practice of these organisations, in your opinion?

	<i>Not at all</i>									<i>To a great extent</i>
	1	2	3	4	5	6	7	8	9	10
Currently	1	2	3	4	5	6	7	8	9	10
Expectation after Frames	1	2	3	4	5	6	7	8	9	10

Please shortly explain your answer:

Depending on their role in flood preparation the Safety Region and Waterboard are prepared. Municipalities and province still need to embed flood preparation into the spatial planning policies. So 5 is the average score. Through the Frames project we aim on going to a 7 score by raising the wareness of the necessaty to incorporate flood preparation in policy development within governance and the privat sector responsible for vital infrastructure.

In general, to what extent is flood recovery embedded in policy and practice of these organisations, in your opinion?

Not

To a great

	<i>at all</i>									<i>extent</i>
Currently	1	2	3	4	5	6	7	8	9	10
Expectation after Frames	1	2	3	4	5	6	7	8	9	10

Please shortly explain your answer:

Due to lack of floods the awareness in the Netherlands is low. Both on preparation as on recovery we need to raise awareness.

Flood resilience of local communities

Please name the communities (e.g., neighbourhoods, municipalities) that will be involved in / informed about your pilot(s), and how many citizens they consist of:

	Community	Number of citizens (approximately)
1	Provincie of Zeeland	380.000
2		
3		
4		
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In general, to what extent is flood risk mitigation embedded in the behaviour of these communities, in your opinion?

	<i>Not at all</i>									<i>To a great extent</i>
Currently	1	2	3	4	5	6	7	8	9	10
Expectation after Frames	1	2	3	4	5	6	7	8	9	10

Please shortly explain your answer:

Due to the lack of awareness and the ultimate small change of flooding as explained before flood risk mitigation is no part of the behaviour of communities.

In general, to what extent is flood preparation embedded in the behaviour of these communities, in your opinion?

	<i>Not at all</i>									<i>To a great extent</i>
Currently	1	2	3	4	5	6	7	8	9	10
Expectation after Frames	1	2	3	4	5	6	7	8	9	10

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Due to the lack of awareness and the ultimate small change as explained before flood risk preparation is no part of the behaviour of communities.

In general, to what extent is flood recovery embedded in the behaviour of these communities, in your opinion?

	<i>Not at all</i>									<i>To a great extent</i>
Currently	1	2	3	4	5	6	7	8	9	10
Expectation after Frames	1	2	3	4	5	6	7	8	9	10

Please shortly explain your answer:

Due to the lack of awareness and the ultimate small change as explained before risk recovery is no part of the behaviour of communities.

**END OF SURVEY
THANK YOU!**